

## HIV Sex Partner Notification Services Available

Sexually Transmitted Disease (STD) clinics in Connecticut offer confidential routine human immunodeficiency virus (HIV) testing to all clients. HIV-positive clients are reported to the Department of Public Health (DPH), STD Control Program, for follow-up by disease intervention specialists (DIS). Follow-up involves education about prevention of HIV transmission and recommended medical care, referral for additional tests such as tuberculosis, STDs and hepatitis C, and identification of sex partners at risk for HIV infection. When sex partners are identified, follow-up is conducted and includes counseling about potential exposure to HIV and HIV testing. Information collected by DIS is used only for public health purposes. If requested, or for some sites by contractual arrangement, the DIS also follow-up on HIV cases reported by the Department of Corrections, HIV counseling and testing sites, hospitals, community health centers, private physicians, and other providers.

In 2007, DIS followed-up on 102 newly reported HIV cases and identified 99 sex partners (Table 1). The probable source of infection for the HIV cases was sexual (85.3%) with a small proportion that had a history of both injection drug use (IDU) and sexual risk (8.8%). Of the 99 sex partners identified, 39 received counseling and HIV testing with 12 (30.8%) HIV-positive persons identified who were previously unaware of their infection. An additional 30 partners were counseled but not tested because they had previously tested positive (n=23) or negative (n=7). Among the 69 sex partners whose HIV status was confirmed, 35 (50.7%) were HIV positive. Five (7.2%) partners who received counseling declined to be tested. Of the remaining sex partners, 18.2% could not be located, and 7.1% had moved out-of-state.

Although the median number of identifiable sex contacts per reported HIV case is low (1 partner per case in 2007, range 0–8), partner notification activities can result in large numbers of newly

### *In this issue...*

<b>HIV Sex Partner Notification Services Available</b>	<b>9</b>
<b>Electronic Matching of the HIV/AIDS and Hepatitis C Surveillance Registries</b>	<b>11</b>
<b>World Tuberculosis Day</b>	<b>12</b>
<b>Electronic Distribution of the Connecticut Epidemiologist Newsletter</b>	<b>12</b>

**Table 1. STD Control Program HIV partner notification, Connecticut, 2007.**

Category	Number	%
<b>HIV positive cases interviewed</b>	102	100.0%
<b>Risk group of HIV case</b>		
Injection Drug Use (IDU) History	9	8.8%
IDU only	0	—
IDU and sexual	9	100.0%
Sexual only	87	85.3%
Heterosexual	50	57.5%
Homosexual	29	33.3%
Bisexual	8	9.2%
Congenital (Perinatal)	1	1.0%
Unknown risk group	5	4.9%
<b>Sex partners identified</b>	99	100.0%
Unable to locate	18	18.2%
Out of state	7	7.1%
Partners interviewed	74	74.7%
Counseled, tested	39	52.7%
HIV positive	12	30.8%
HIV negative	27	69.2%
Counseled, not tested	30	40.5%
Previous HIV positive	23	76.7%
Previous HIV negative	7	23.3%
Counseled, refused testing	5	6.8%

identified infections. For example, in the course of a DIS follow-up of a network of HIV and syphilis infections originating from the report of one co-infected homosexual male, 30 persons were identified with 22 interviews conducted. As a result of the investigation, 7 new HIV infections and 7 existing HIV infections were identified. Six syphilis cases were also identified with 5 being co-infected with HIV.

**Reported by:** W. Richardson, H. Jenkins, STD Control Program, A. Roome, HIV/AIDS Surveillance Program, Connecticut Department of Public Health.

**Editorial:**

The public health response to many communicable diseases has traditionally included education and testing of exposed contacts. Recent Centers for Disease Control and Prevention (CDC) recommendations for routine HIV testing of adolescents and adults aged 13–64 years will more than likely increase the need for prevention counseling with persons who were previously unaware of their HIV infection (1). Assistance with notification of sexual and needle-sharing partners may also increase.

These data show that DIS follow-up of HIV-positive clients and their partners has identified many people who were previously unaware of their HIV status. The low number of partners who refused testing suggests that the services were well accepted. However, only a small percentage of HIV/AIDS cases received DIS partner services. In 2007, 1,313 HIV/AIDS cases were reported with 102 (7.8%) receiving DIS follow-up. This could be an indication that physicians may not be aware of these services or may not be informing their patients that assistance is available.

The CDC released new prevalence estimates that indicate there were 1.1 million people in the United States living with HIV/AIDS at the end of 2006, and 21% were unaware of their infection (2). The CDC also released recommendations for providing partner services that include the use of HIV/AIDS surveillance data to initiate services (3). The DPH HIV/AIDS case report form includes a question about a provider's need for assistance with notification of sex partners. Providers can also request assistance with HIV partner services by contacting the HIV/AIDS Surveillance Program at (860) 509-7900 or the STD Control Program at (860) 509-7920.

**References:**

1. CDC. *Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings.* MMWR 2006;55(No. RR-14).
2. CDC. *HIV prevalence estimates – United States, 2006.* MMWR 2008;57:1073-76.
3. CDC. *Recommendations for partner services programs for HIV infection, syphilis, gonorrhea, and Chlamydia infection.* MMWR 2008;57(No.RR-9).

**Electronic Matching of the HIV/AIDS and Hepatitis C Surveillance Registries**

The Department of Public of Health (DPH) has conducted surveillance for HIV/AIDS and hepatitis C (HCV) for many years. In 1982, AIDS was made reportable with HIV added in 2002. A total of 18,950 HIV/AIDS cases were reported through 2007. HCV has been reportable since 1994, with the exception of 1997-1998 when anti-HCV was removed from the list of laboratory reportable findings. A total of 47,814 cases of HCV were reported to the DPH from January 1994 through August 2008.

Follow-up is conducted on reported cases of HIV/AIDS and HCV to collect information about source of infection. Infection source is known for 90% of HIV/AIDS cases, but only 4% of HCV cases due to the often lengthy period of time between infection and testing and limited capacity for case investigation. Both viruses are capable of chronic infection and can be efficiently transmitted through percutaneous exposure to blood. Because both viruses can be transmitted through injection drug use (IDU), it is possible that the DPH HIV/AIDS and HCV registries include many of the same cases. In August 2008, the HIV/AIDS and HCV registries were electronically matched to test this hypothesis.

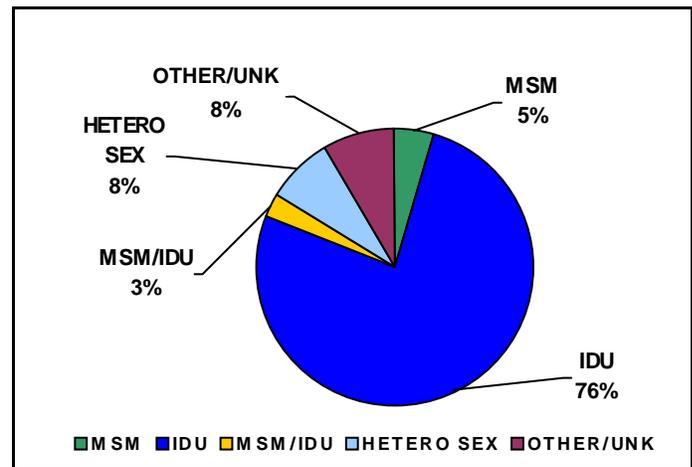
Using SAS version 9.1 (SAS Institute, Cary, NC), electronic files were created for each of the registries. In a preliminary step, the HIV/AIDS and HCV registries were electronically matched against the DPH Vital Records mortality database. The HIV/AIDS registry was limited to cases with dates of diagnosis between 1994 through 2007 to correspond to the date range of the HCV registry.

Matching between databases was conducted according to a standard sequence. The first match used exact patient first name, last name, and date of birth. Additional matches were performed using SOUNDEX, a code based on substitution of numbers for certain letters of the patient last name, and date of birth as follows: a) SOUNDEX and

exact date of birth; b) SOUNDINDEX and day and year of birth, and; c) SOUNDINDEX and year of birth (1). Cases identified using the less exact SOUNDINDEX, and incomplete dates of birth were evaluated manually to confirm the cases were the same.

A total of 9,816 HIV/AIDS cases and 46,185 anti-HCV positive cases were reported to the DPH from 1994 through 2007. A match of these databases identified 2,345 co-infected cases, representing 24% of HIV/AIDS cases and 5% of HCV cases. Of the co-infected cases, 70% were male. When stratified by race and ethnicity, 32% were black, 31% were white, and 37% were Hispanic. The most common risk factor was IDU (76%); the least common was men who have sex with men (MSM) IDU (3%) (Figure 1, Table 1). Of the 3,911 (40%) cases identified as IDU in the HIV/AIDS registry, 1,847 (47%) were co-infected with HCV. Mortality differed between the two infection types. Of the co-infected cases, 24% had died compared to 21% of the HIV/AIDS cases, and 9% of the HCV cases.

**Figure 1. Distribution of HIV transmission category for HIV-hepatitis C co-infected cases, Connecticut, 1994-2007.**



**Reported by:** S. Speers, A. Roome, K. Carley, HIV/AIDS Surveillance Program, Connecticut Department of Public Health.

**Table 1. Number and percentage\* of HIV-HCV co-infected cases by sex, race/ethnicity, age, and HIV transmission category, Connecticut, 1994-2007.**

	<u>HIV transmission category</u>											
	<u>MSM</u>		<u>IDU</u>		<u>MSM/IDU</u>		<u>Hetero</u>		<u>Other/Unk</u>		<u>Total</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
<b>Total</b>	112	5	1784	76	63	3	192	8	194	8	2345	100
<b>Sex</b>												
Male	112	7	1274	77	63	4	73	4	123	8	1645	70
Female	—	—	510	73	—	—	119	17	71	10	700	30
<b>Race/ethnicity</b>												
White	59	8	525	73	17	2	49	7	72	10	722	31
Black	25	3	578	76	21	3	71	9	62	8	757	32
Hispanic	28	3	676	79	24	3	72	8	59	7	859	37
Other	—	—	5	71	1	14	—	—	1	14	7	0
<b>Age at report of co-infection</b>												
<20	—	—	—	—	—	—	—	—	4	100	4	0
20-29	9	7	101	74	6	4	10	7	10	7	136	6
30-39	29	4	570	79	18	2	61	8	47	6	725	31
40-49	49	5	810	76	28	3	84	8	89	8	1060	45
50-59	20	5	273	75	11	3	27	7	33	9	364	16
60+	5	9	30	54	—	—	10	18	11	20	56	2

\* Percentages might not total 100% because of rounding.

**Editorial:**

Electronic matching of registries is a potentially useful and efficient way to transfer information in one registry to another. The HIV/AIDS and HCV registries both benefit from periodic matching with the Vital Records death file to update the status of individual cases. Long-term maintenance of chronic infectious disease databases should include the routine monitoring of vital status to validate the characterization of people living with the infection. Since both HIV and HCV can be transmitted by IDU, it is not surprising that this risk group was 80% of the matched cases. This is of particular use to the HCV registry, in which very few cases have an identified risk. Notably, 47% of HIV-positive IDU were co-infected with HCV, highlighting the need for testing this population for both HIV and HCV, and integrated care and prevention services.

**References:**

1. Zizhong Fan, Westat, Rockville, MD. Matching Character Variables by Sound: A closer look at SOUNDX function and Sounds-Like Operator (=\*). 2001. Available at <http://www2.sas.com/proceedings/sugi29/072-29.pdf>. Accessed September 9, 2008.

**World Tuberculosis Day**

The Connecticut Department of Public Health (DPH) and public health officials across the nation recognize May 24<sup>th</sup> as World TB (Tuberculosis) Day. On this day in 1882, Dr. Robert Koch gave a historic lecture on “The Etiology of Tuberculosis” to the scientific community announcing that he had discovered the cause of tuberculosis, the TB bacillus. At that time, TB was the cause of death in 1 out of 7 people.

Tuberculosis continues to be a major cause of morbidity and mortality. One third of the world’s population is currently infected with TB (defined as latent tuberculosis infection), with an estimated 10% of these developing active disease in their lifetime. Last year TB disease resulted in approximately 2 million deaths. Despite the fact that TB is a

preventable and curable disease, 98 cases of active TB disease were reported in Connecticut in 2008, with an incident rate of (2.8/100,000).

In an effort to control TB statewide, the DPH TB Control Program works with healthcare providers and local health departments by monitoring for new cases, assuring completion of treatment, investigating and treating recently exposed contacts, and promoting screening for infection in a variety of settings. For more information, visit the DPH TB Control Program website at [www.ct.gov/dph](http://www.ct.gov/dph), click on Programs and Services, then select Tuberculosis.

**Electronic Distribution of the Connecticut Epidemiologist Newsletter**

The Connecticut Epidemiologist newsletter, with the exception of the January reportable diseases issue, will only be available electronically. Anyone interested in receiving the newsletter can subscribe:

- Go to the Department of Public Health (DPH) website: [www.ct.gov/dph](http://www.ct.gov/dph)
- Find “E-ALERTS” at the bottom of the left navigational bar (left column)
- Click on “Subscribe now or update your e-Alerts.”
- Complete the required information on the popup form.
- Click “Submit”
- Select from the list of e-Alerts that you are interested in receiving (Infectious Diseases)
- Click “Subscribe”

You will receive an e-mail message when new Connecticut Epidemiologist newsletters are posted to the DPH Website. If you have any questions concerning this process, please contact Devon Eddy at (860) 509-7995.

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